

Alabama Board of Nursing
Alabama Public Schools Health Survey 2016 Report

Background Information

The purpose of this report is to obtain accurate, current data from public schools regarding medications, health care procedures performed, and/or delegation by nurses to unlicensed school personnel. The tool used to collect the data was developed by the ABN. The tool was updated for 2016 in order to improve response to the survey and gain pertinent data. The prior survey did not allow data collected to be saved in a format for the schools to access. The schools completing the survey could not export the data to excel spreadsheets and maintain as needed. A revision to the 2016 survey enables users to export to an Excel spreadsheet to be uploaded and saved. The survey data is maintained for historical comparisons of data.

Trends for this survey's results will be focused on comparison of data for diabetic and anaphylaxis care to include medications provided and treatments delivered. The data collected also provided insight to the trends in school healthcare and school personnel who assist with medication administration information. The data collected is not limited; it also provides a snapshot of numerous medical conditions, medications administered, and treatments performed in Alabama public schools.

Sample

The ABN continues to have difficulty in obtaining the survey from every public school in Alabama; therefore, 95% of the school systems completed the survey. Some school nurses failed to complete the entire survey or completed only certain sections of the survey due to missing data from some of the schools within their assigned area.

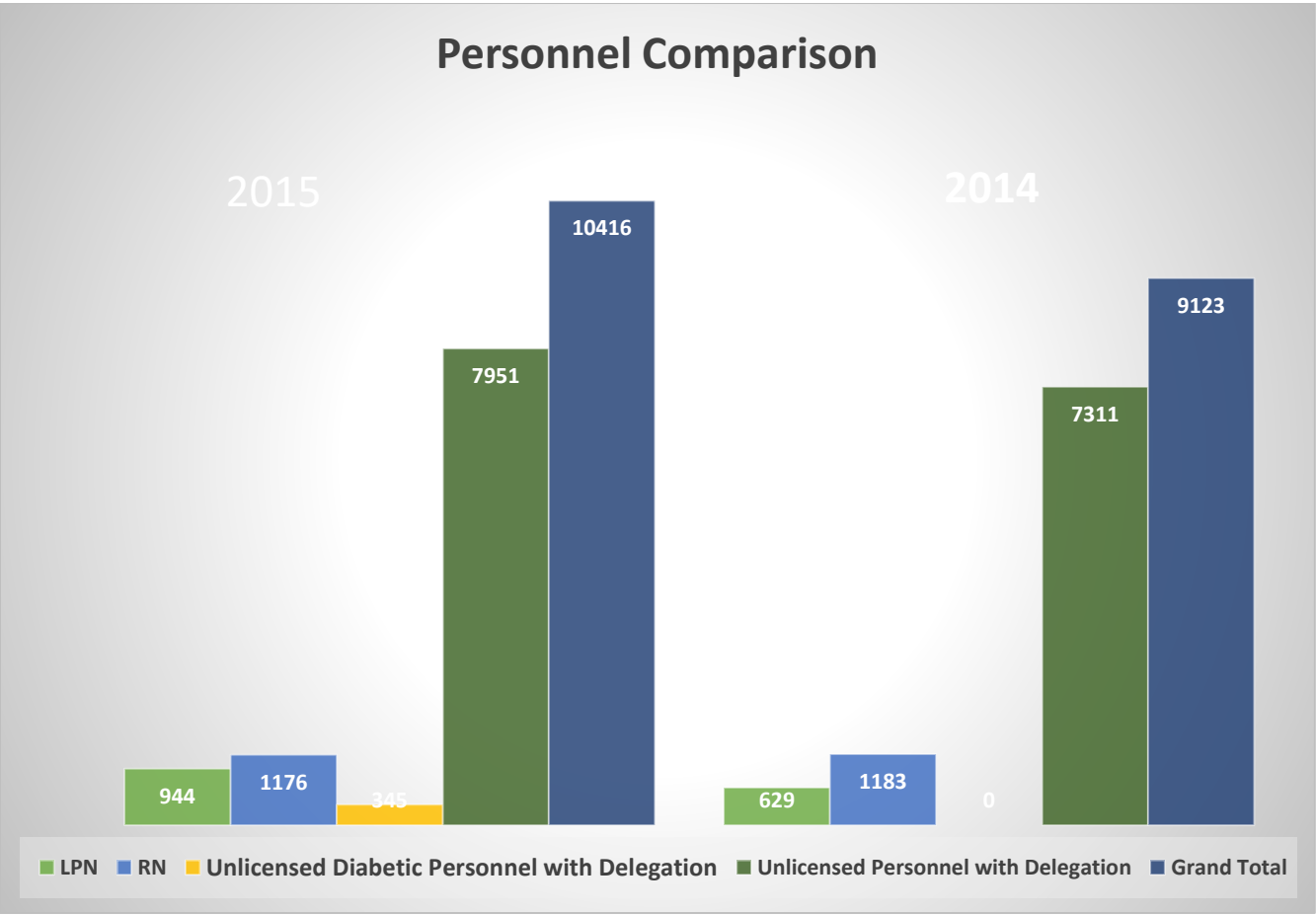
Information Findings

The data from the reports was analyzed using simple descriptive statistics (counts, means, and sums) for each item. Statistical analysis occurred using the Statistical Package for the Social Sciences (SPSS) version 22 and Excel 2016. Some items had evidence of discrepancies in the responses, which made this data questionable. Findings are reported based on response per item since not all respondents chose to answer each question. Limitations are related to school system employees. Both licensed and unlicensed employees self-reported the data; therefore, the accuracy and consistency of the data reported is uncertain.

The 2016 survey separated questions by those pertaining to registered nurses (RNs), licensed practical nurses (LPNs), and unlicensed staff. This was the first time data was collected for Unlicensed Diabetic Personnel with Delegation. The current survey requested this data and trends to determine if the Safe at Schools Act had any effect on the delegation of administration of insulin and glucagon to unlicensed school personnel. A total of 345

unlicensed diabetic school personnel were delegated to assist with diabetic care to include glucagon and insulin administration (Figure 1).

Figure 1



Diabetic Care

Public schools in the state of Alabama were mandated by the Alabama Safe at Schools Act: Act 2014-437 to implement a training curriculum to teach unlicensed school personnel diabetic management. Alabama Safe at Schools Act: Act 2014-437 Section 3 (a) states “no later than the beginning of the 2015-1016 school year, the Alabama State Department of Education, in consultation with the Alabama Board of Nursing, developed guidelines for the training of school employees in the care needed for students with diabetic medical needs according to the student’s Individual Health Plan”. Medical authorization is limited to permit the administration of injectable medications specific to the student’s diabetic care. Figures 2 and 3 provide information on the numbers of medical treatment orders for Type I and Type II Diabetes.

Figure 2 Diabetes Type I

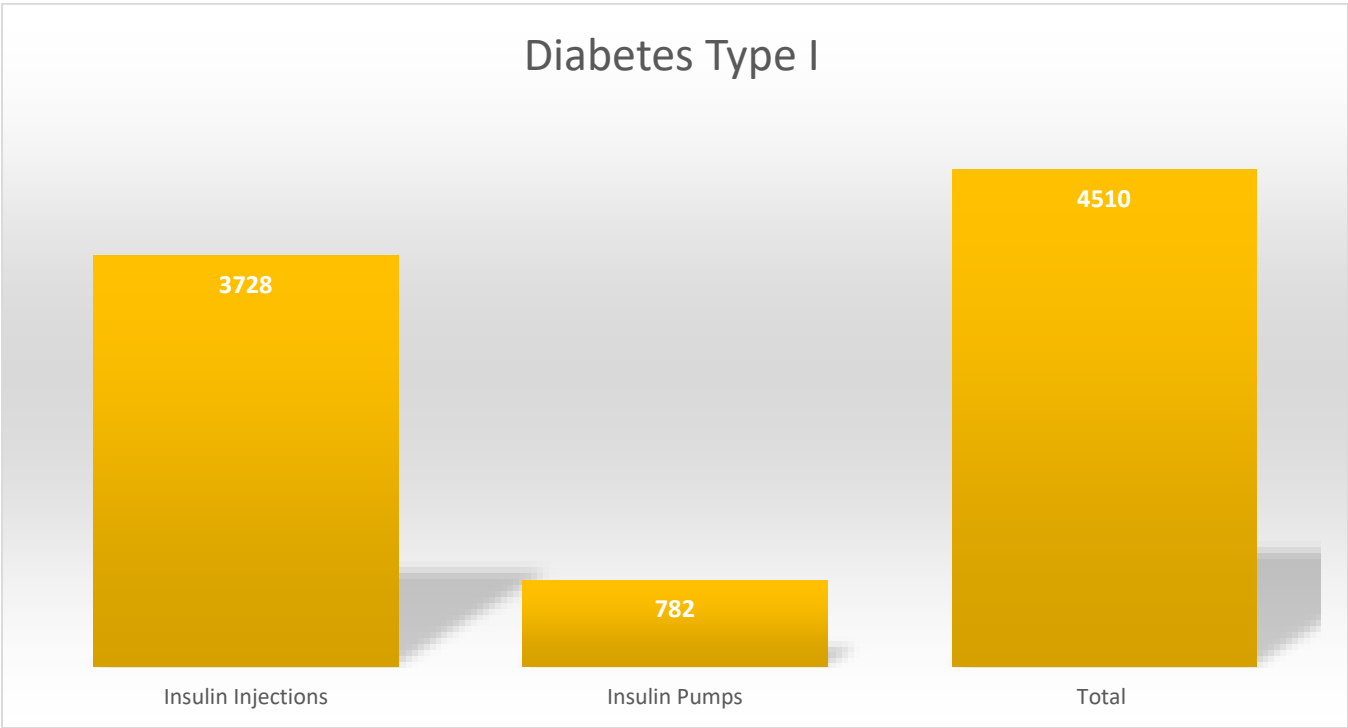
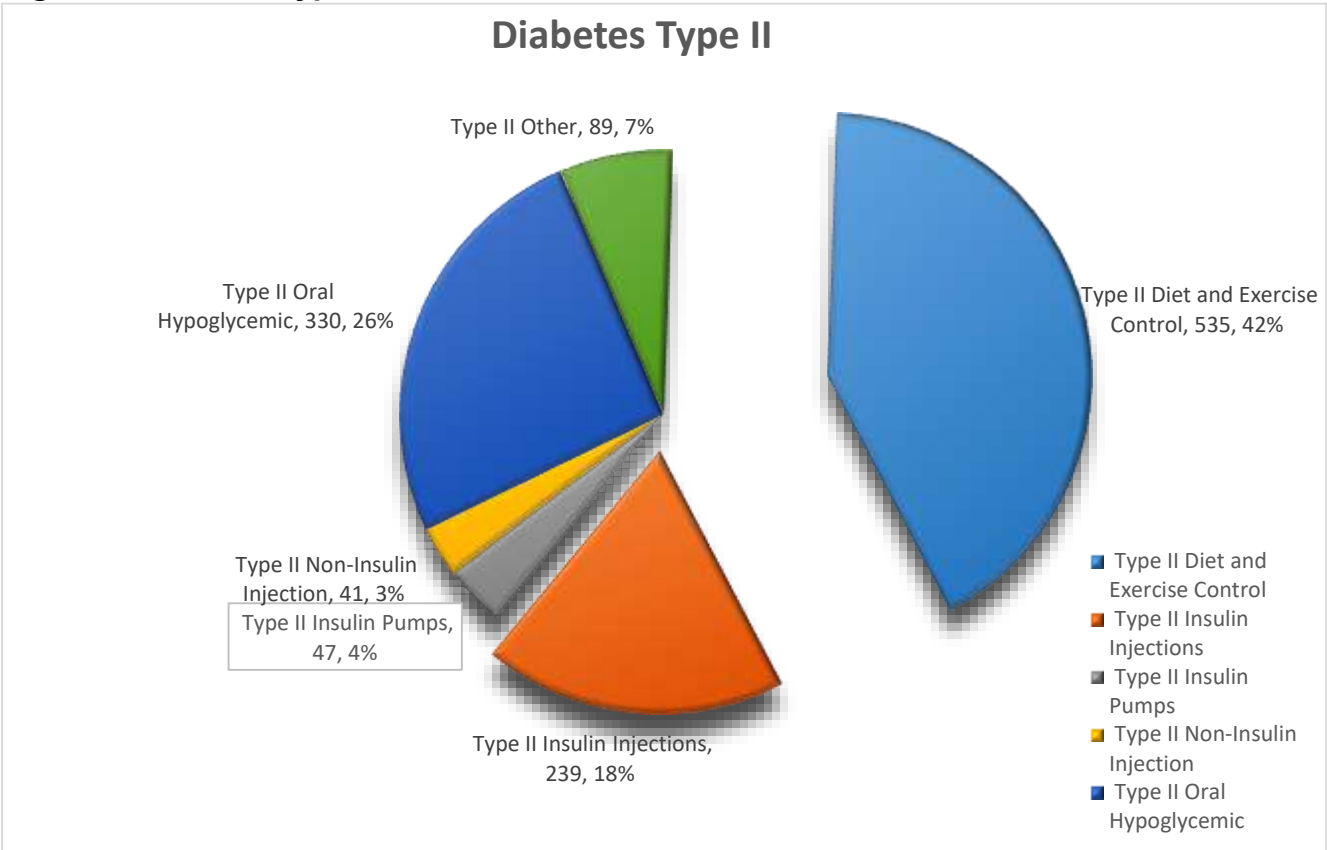


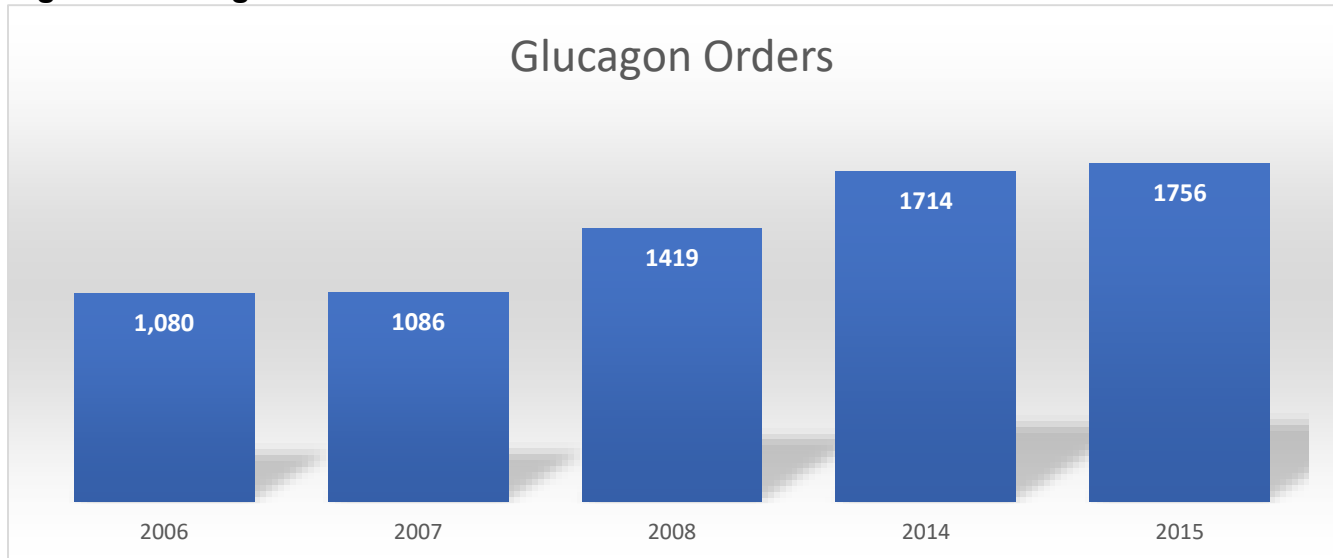
Figure 3 Diabetes Type II



Comparisons of survey data of Type II insulin pumps yielded a decline of insulin pump usage, from 18% in 2014 compared to 4% in 2016. Type II oral hypoglycemia increased from 9% in 2014 to 26% in 2016.

History of Students with Glucagon Orders

Figure 4 Glucagon Orders



Data in Figure 4 shows an increase in the number of students with glucagon orders in the school setting from 2008 to 2014 with a slight increase from the 2014-2016 school years.

Allergies

Alabama Act No. 2014-405, Anaphylaxis Preparedness Program, passed in the regular legislative session. The Anaphylaxis Preparedness Program incorporated the following three levels of prevention initiated by licensed public school nurses as a part of the health services programs:

- (1) Level I – Primary Prevention: Education programs that address food allergies and anaphylaxis through both classroom and individual instruction for staff and students.
- (2) Level II – Secondary Prevention: Identification and management of chronic illness.
- (3) Level III – Tertiary Prevention: The development of a planned response to anaphylaxis-related emergencies in the school setting.

The 2014 survey yielded a total of 72,469 students with an allergy. 2016 data identified environmental as the highest-percentage causation factor producing allergic symptoms, which was the same as last year. There was a slight increase in food as a causation factor for 2016. The total number of students with allergies increased significantly to 131,282 for 2016.

Figure 5 Allergies

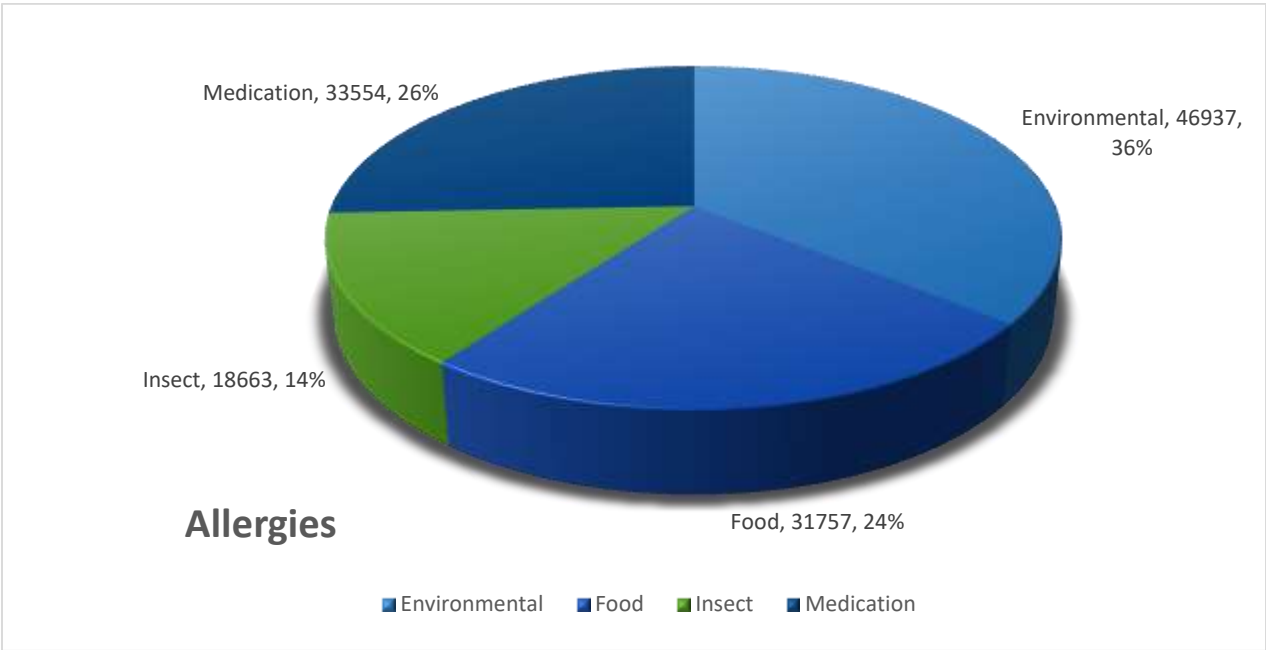
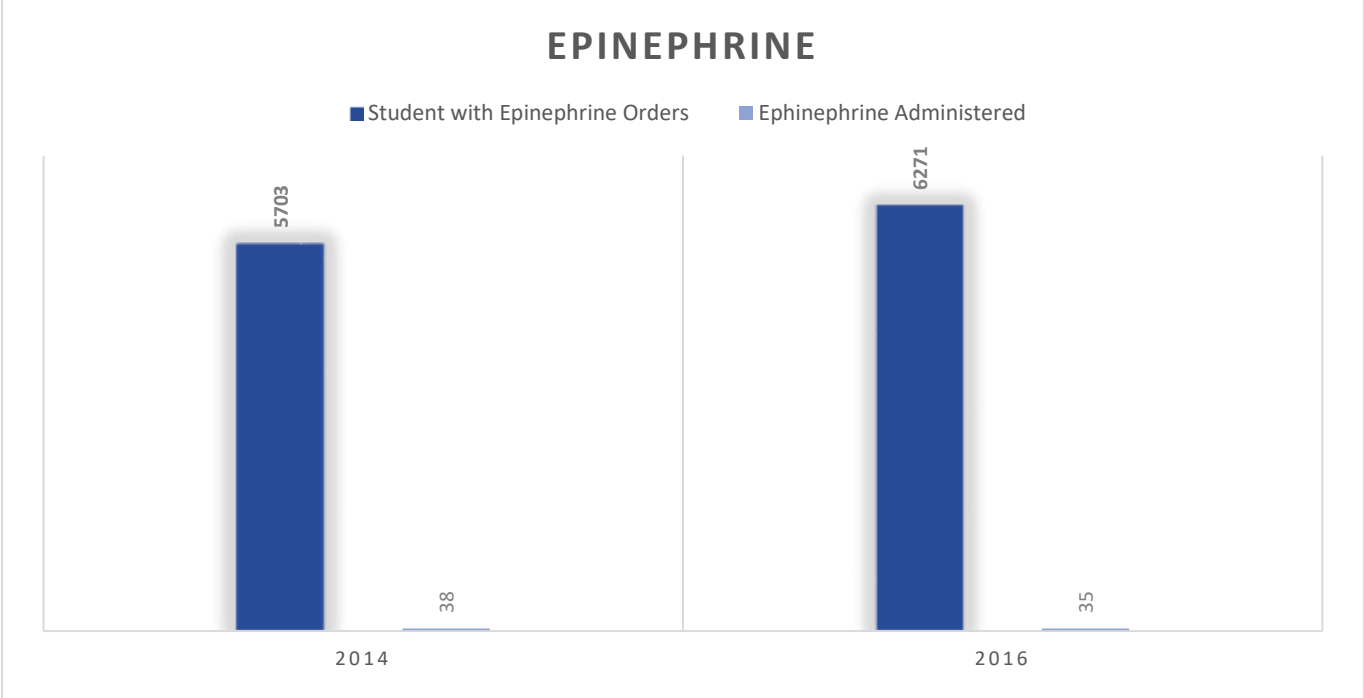


Figure 5 Allergies and breakdown of identified allergies by type of causation.

According to the 2014 survey, EPI pen for emergency reactions was ordered for 5,703 students, and 6,271 students for 2016 (Figure 6). The question was asked differently on the 2016 survey. This may have resulted in a duplication of students. The emergency administration of the EPI was 38 dosages in 2014 and 35 in 2016.

Figure 6 Epinephrine



Schools were also surveyed on the numbers of students with physician's orders for specific medications or treatments. Table 1 provides data for the top 3 medical diagnoses based on the number students with the condition. The number of students with attention deficit disorders showed a significant increase from year 2008 to academic year 2013-2014; however, in academic year 2015-2016 this number decreased by 56%. This finding will be watched closely in order to trend numbers for future consideration.

Table 1 Medical Conditions

Conditions Experienced by Students	2006	2007	2008	2013-2014 Academic Year	2015-2016 Academic Year
Asthma	35,025	36,933	31,436	70,417	82,813
Attention deficit disorders/attention deficit hyperactivity disorder	18,381	20,655	30,552	122,712	68,845
Seizure Disorders	4,240	4,693	4,827	4,993	6,326

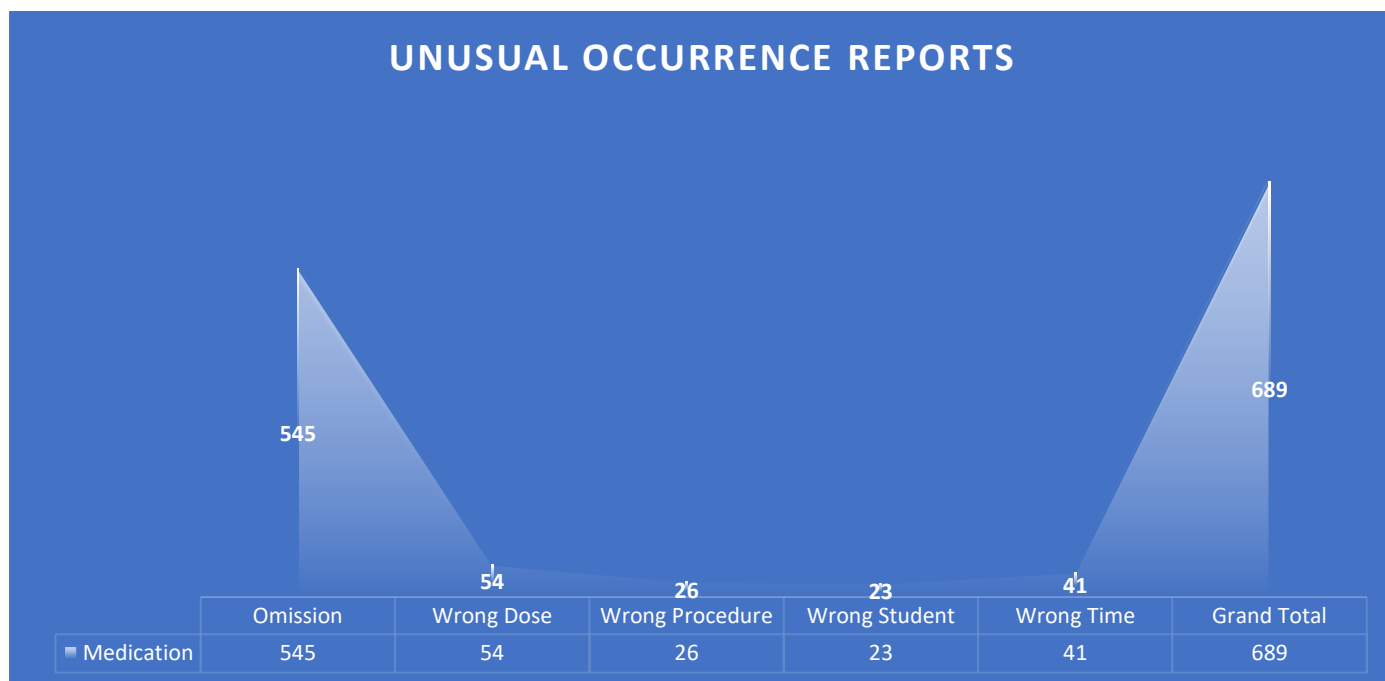
Seizure disorder medication has been a growing concern due to the different types of medications used to control seizure activity (Table 2). The growing concerns voiced by the school nurses include proper management of this diagnosis in a school setting. The 2008 survey noted 1,702 students who had orders for Diastat®; however, there was a decrease to 836 in 2016. Diastat® is an emergency medication used primarily to treat seizures lasting over a specific time (usually five minutes). Cannabis oil is currently ordered as emergency treatment if the student is in a trial study with Children's of Alabama Hospital. Intranasal Versed has become a safe alternative to Diastat®. Parents and prescribers like the ease of administration and lessened need for privacy due to the route of administration.

Table 2 Medication Used for the Treatment of Seizures

Type of Medication	Student with Physician Order	Emergency Medication Administered
Intranasal Versed	12	2
Cannabis Oil	13	0
Diastat®	836	203* validation needed

School Nurse Safety

Figure 7



Evaluation is critical to any activity. The changes to the Alabama Board of Nursing Administrative Code that allow delegation of certain tasks by licensed school nurses to unlicensed school personnel require evaluation. Safety of students is foremost. Evaluation allows for collection of data on medication errors to determine necessary changes to processes or education. This is a new report which will allow the ABN to track and trend unusual occurrences.

Automatic Defibrillator (AED)

The State of Alabama passed the Automated External Defibrillator (AED) Act in April 2009. This Act required that an automated external defibrillator be placed in each public k-12 school in Alabama. The 2013-2014 first time data collected after the Act was implemented noted that 1,783 AEDs were in place in public schools. The 2016 data survey data demonstrated that 1,988 AEDs were in place. The actual use of AEDs resulted in 47 occurrences; however, the question will need to be further clarified to indicate whether an actual shock was delivered. Currently there are 7 students with do not resuscitate orders (DNR).

Recommendations

The feedback from school nurses continues to be positive, especially with the ability to export to Excel which allows tracking through the school year. The survey for 2016-2017 will be revised to provide clearer definitions which will ensure consistency in answering the survey questions. Sometimes, turnover of lead nurses before the school year ended left no one responsible to complete the survey or have the data available.

Changes and information pertaining to 2016-2017 survey:

- All the data to be entered starting in January of each year
- Provide comprehensive definition list
- Dual nurse access to allow the lead nurse to view the information
- Increase participation by all schools
- Partner with the Nurse Administrator for the State Department of Education to ensure the survey is completed by all school systems.

Implications

The ABN's legal mandate is protection of the public's health, safety, and welfare. There is a new era in providing health services to children in Alabama schools. With the collection of this health service data, the ABN has a better understanding of the health procedures and medications commonly provided for Alabama public school students. The ABN continues to collaborate with the State Department of Education and other stakeholders to revise and develop rules regarding school nurse practice with the intent to provide better student protection.

Conclusion

The ABN's IT department continues to develop and improve the school nurse survey. The goal is to share meaningful data with stakeholders in nursing, school superintendents, and legislators to demonstrate the growing demands on Alabama schools of student health services. The ABN will continue to use the results from future data collection to guide regulatory needs in school nurse practice and to revise the administrative rules as needed in order to protect the public.

Collected, compiled, and written by Joyce Jeter, MSN, RN, NEA-BC, Nurse Consultant, Practice and CE, and Director of Licensing, as part of the meeting of the Alabama Board of Nursing on November 17-18, 2016.